



[40116/05801]

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Applicants : Desai et al.
Serial No. : 09/716,604
Filed : November 20, 2000
For : Distributed-Service Architecture at the Point of Sale or Service
Group Art Unit : 2182
Examiner : Justin R. Knapp

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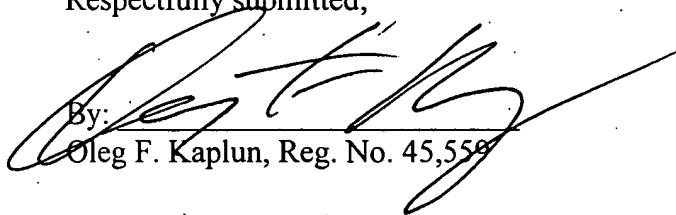
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By: Date: September 20, 2005
Oleg F. Kaplun, (Reg. No. 45,559)

TRANSMITTAL

In response to the Notification of Non-Complinat Appeal Brief mailed on Septembner 14, 2005, transmitted herewith please find three copies of a revised Appeal Brief for filing in the above-identified application. No fees are believed to be required. The Commissioner is hereby authorized to charge any additional fees to the **Deposit Account of Fay Kaplun & Marcin, LLP No. 50-1492** any required fees. A copy of this paper is enclosed for that purpose.

Respectfully submitted,

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Dated: September 20, 2005



PATENT
Attorney Docket No.: 40116 - 05801

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:)
Apurva M. Desai et al.)
Serial No.: 09/716,604) Group Art Unit: 2182
Filed: November 20, 2000) Examiner: Justin R. Knapp
For: DISTRIBUTED-SERVICE) Board of Patent Appeals and
ARCHITECTURE AT THE POINT) Interferences
OF SALE OR SERVICE)

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

In support of the Notice of Appeal filed on April 28, 2005, and pursuant to 37 C.F.R. § 41.37, Appellants present in triplicate an appeal brief in the above-captioned application.

This is an appeal to the Board of Patent Appeals and Interferences from the Examiner's final rejection of claims 12-31 in the final Office Action dated January 12, 2005. The appealed claims are set forth in the attached Appendix A.

1. Real Party in Interest

This application is assigned to Symbol Technologies, Inc., Holtsville, New York, the real party in interest.

2. Related Appeals and Interferences

There are no other appeals or interferences which would directly affect, be directly affected, or have a bearing on the instant appeal.

3. Status of the Claims

Claims 1 -11 were previously canceled. Claims 12-31 have been rejected in the final Office Action. The final rejection of claims 12-31 is being appealed.

4. Status of Amendments

All amendments submitted by Appellants have been entered.

5. Summary of Claimed Subject Matter

In one aspect of the present invention, a POS system includes a communications link which communicatively interconnects a POS register, a first peripheral, a protocol converter, and a transaction controller. The link may be an ethernet running TCP/IP. (See Specification, p. 4, l. 30 - p. 5, l.1). The protocol converter may convert communications using legacy protocols utilized by peripheral devices coupled thereto into communications using a protocol utilized by

the link. (*See Specification, p. 5, ll. 11-15*). A second communications link may communicatively couple a data center and the transaction controller, which mediates a processor's access to the services of the peripherals through the second link. (*See Specification, p. 5, ll. 8-28*).

The transaction controller may also contain intelligence to communicate with the first peripheral. (*See Specification, p. 6, ll. 4-7*). When the first peripheral is added, the intelligence of the transaction controller may be sufficient or may be increased to interact with the new peripheral, allowing the register to continue transaction processing while the new peripheral is added. (*See Specification, p. 6, ll. 8-16*). When the first peripheral replaces a second peripheral, the transaction controller may filter communications by reading transmissions destined for the old peripheral and supply transmissions for the new peripheral. Where the new peripheral is incapable of responding to the register in an expected manner, the transaction computer may convert transmissions from the new peripheral to the register. (*See Specification, p. 6, ll. 17-27*).

6. Grounds of Rejection to be Reviewed on Appeal

I. Whether claims 12, 13, 23-26 and 29-31 are unpatentable under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,415,341 to Fry et al. ("Fry").

II. Whether claims 14-22 are unpatentable under 35 U.S.C. § 103(a) as obvious over Fry.

III. Whether claims 27 and 28 are unpatentable under 35 U.S.C. § 103(a) as obvious over Fry in view of <http://www.sun.com/jini> ("Sun").

7. Argument

I. The Rejection of Claims 12, 13, 23-26 and 29-31 Under 35 U.S.C. § 102(e) as Being Anticipated by U.S. Patent No. 6,415,341 to Fry et al. Should Be Reversed.

In the Final Office Action, the Examiner rejected claims 12, 13, 23-26 and 29-31 under 35 U.S.C. § 102(e) as being anticipated by Fry. (*See* 1/12/05 Office Action, ¶ 2). Fry relates to a system for expanding POS terminal compatibility using an adapter for connecting to a computer terminal in a POS system. More specifically, Fry describes a protocol converter/print share device, which functions as the adapter and is connected to a POS terminal via an RS-485 I/O channel. (*See* Fry, col. 5, ll. 16-19). The protocol converter operably converts the RS-485 commands from the POS terminal to RS-232 commands, prioritizes the commands, and sends them to a printer in a format which the printer understands. (*See* Fry, col. 4, ll. 29-34). The protocol converter also transmits data back to the POS terminal in order to emulate the operation of a printer with which the POS terminal is compatible. (*See* Fry, col. 4, ll. 34-38). The protocol converter can further format commands from the POS terminal to control peripheral devices attached to a personal computer (PC) client. (*See* Fry, col. 5, ll. 31-34).

Functions of external devices, such as the printer, which are not directly supported by the POS terminal may be enabled using a feature card (“feature C”) port and programming the POS terminal to transmit headers, commands, and data from the feature C port as raw data. (*See* Fry, col. 4, ll. 41-61). The protocol converter then emulates a feature C device and responds to

commands transmitted by the POS terminal in the feature C format. (See Fry, col. 4, l. 65 - col. 5, l. 6). Fry also states that the protocol converter may provide adaptability by programming a flash ROM disposed therein to recognize and transmit particular signals and sequences. (See Fry, col. 6, ll. 12-16).

Claim 12 of the present application recites a distributed service system comprising “a register device for conducting a transaction” and “a first peripheral device configured to communicate information regarding the transaction according to a first protocol” and “a protocol converter coupled to the register device and the first peripheral device, the protocol converter configured to receive information from the first peripheral device according to the first protocol and communicate the information using TCP/IP” in combination with “*a transaction controller coupled to the protocol converter and the register device, the transaction controller operable to facilitate communication between the register device and the protocol converter.*”

The Examiner states that the protocol converter described by Fry acts as a transaction controller because it facilitates communication between the register device and the protocol converter. (See 1/12/05 Office Action, ¶ 3). In support of this contention, the Examiner further states that the RS-485 transceivers of the protocol converter purportedly function as transaction controllers because they are responsible for facilitating communication between the register and the protocol converter components. (See 4/5/05 Advisory Action, p. 2). However, the transceivers do not meet the requirements for qualifying as a transaction controller because

they lack the intelligence to interact with devices in the manner ascribed to the transaction controller of the present invention. According to the specification of the present invention, the transaction controller is “programmed to interact with a new peripheral” and “mediates any interaction with the new peripheral.” (*See* Specification, p. 6, ll. 17-20). This interaction extends beyond simply converting between protocols. For example, the transaction controller is capable of receiving commands from the register, such as a scanner-initialization routine, and converting data parameters of the commands into a format that is understood by a peripheral. (*See* Specification, p. 6, l. 28 - p. 7, l. 9). The transceivers as related by Fry lack this capability, and merely allow data to be transmitted and received. Thus, in the rejection, the Examiner appears to have overlooked the controlling aspect of the transaction controller.

Furthermore, even if the protocol converter were in fact, a transaction controller as the Examiner contends, this would render the claim that the transaction controller “facilitate[s] communication between the register device and the protocol converter” moot since the protocol converter would be facilitating communication between the register and itself. If the protocol converter was a transaction controller, there would be no need for any facilitation of communication between the protocol converter and the register. However, there exists such a need because in addition to converting between protocols, instructions and data must be recognized, interpreted, and if necessary, converted. The fact that the transaction controller and the protocol converter are functionally distinct is pertinent to the operation of the present

invention and satisfies this need. If a new device not supported by the POS terminal were added to the system taught by Fry, the POS terminal—and possibly the protocol converter as well—would need to be reprogrammed. This is because there is no transaction controller to facilitate communication between the protocol converter and the register. Since Fry does not disclose whether the system may be kept in an operational state when reprogramming occurs, it could not possibly contemplate a “transaction controller operable to facilitate communication between the register device and the protocol converter” for the purpose of keeping the system operational when a new device is added. Thus, it is respectfully submitted that Fry does not anticipate “a transaction controller coupled to the protocol converter and the register device, the transaction controller operable to facilitate communication between the register device and the protocol converter,” as recited in claim 12. Therefore, it is respectfully requested that the rejection of claim 12 be reversed. Because claims 13, 23-26 and 29-30 depend from and, therefore, include all of the limitations of claim 12, it is respectfully submitted that these claims are also allowable, and that the rejections of these claims should be reversed.

Claim 31 of the present invention recites similar limitations to those of claim 12, including “operating a transaction controller remotely located from said register device and coupled to the protocol converter and the register device, the transaction controller operable to facilitate communication between the register device and the protocol converter.” Accordingly,

it is respectfully submitted that this claim is also allowable for at least the reasons discussed above with respect to claim 12, and that this rejection be reversed.

II. The Rejection of Claims 14-22 Under 35 U.S.C. § 103(a) as Being Obvious Over Fry Should Be Reversed.

In the Final Office Action, the Examiner rejected dependent claims 14-22 under 35 U.S.C. 103(a) as being unpatentable over Fry. (*See* 1/12/05 Office Action, ¶ 11). The deficiencies of Fry have been discussed above. Therefore, Appellant respectfully submits that dependent claims 14-22 are allowable for the reasons stated above with regard to claim 12, and that this rejection be reversed.

III. The Rejection of Claims 27 and 28 Under 35 U.S.C. § 103(a) as Being Obvious Over Fry in view of Sun Should Be Reversed.

In the Final Office Action, the Examiner rejected dependent claims 27 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Fry in view of Sun. (*See* 1/12/05 Office Action, ¶ 14). Sun relates to a network technology for building distributed systems running on a Java™ platform.

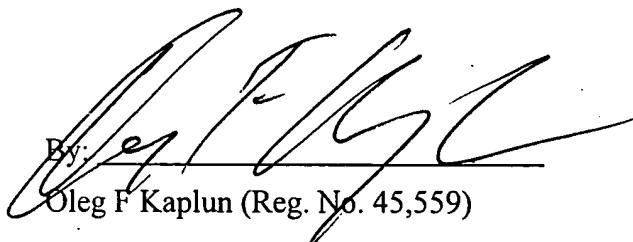
It is respectfully submitted that Sun does not cure the above-noted deficiencies of Fry. Therefore, Appellant respectfully submits that dependent claims 27 and 28 are allowable for

the reasons stated above with regard to claim 12. Thus, Appellant respectfully requests that the rejection of these claims be reversed.

8. Conclusions

For the reasons set forth above, Appellants respectfully request that the Board reverse the final rejections of the claims by the Examiner under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a), and indicate that claims 12-31 are allowable.

Respectfully submitted,


By: _____
Oleg F Kaplun (Reg. No. 45,559)

Date: September 20, 2005

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CLAIMS APPENDIX A

12. A distributed service system, the system comprising:
 - a register device for conducting a transaction;
 - a first peripheral device configured to communicate information regarding the transaction according to a first protocol;
 - a protocol converter coupled to the register device and the first peripheral device, the protocol converter configured to receive information from the first peripheral device according to the first protocol and communicate the information using TCP/IP; and
 - a transaction controller coupled to the protocol converter and the register device, the transaction controller operable to facilitate communication between the register device and the protocol converter.
13. A distributed service system according to claim 12, wherein the register device is a point-of-sale (POS) terminal.
14. A distributed service system according to claim 12, wherein the first peripheral device comprises a printer.
15. A distributed service system according to claim 12, wherein the first peripheral device comprises a signature-capture platform.
16. A distributed service system according to claim 12, wherein the first peripheral device comprises a PIN pad.
17. A distributed service system according to claim 12, wherein the first peripheral device comprises a scanner.

18. A distributed service system according to claim 12, wherein the first peripheral device comprises a check reader.
19. A distributed service system according to claim 12, wherein the first protocol comprises RS485.
20. A distributed service system according to claim 12, wherein the first protocol comprises RS232.
21. A distributed service system according to claim 12, wherein the first protocol comprises USB.
22. A distributed service system according to claim 12, wherein the first protocol comprises TCP/IP.
23. A distributed service system according to claim 12, further comprises a second register device coupled to the protocol converter, the protocol converter further configured to communicate information received from the first peripheral device with the second register device.
24. A distributed service system according to claim 12, further comprising a plurality of peripheral devices coupled to the protocol converter.
25. A distributed service system according to claim 12, wherein state information regarding the transaction is stored in the transaction controller and the register device.

26. A distributed service system according to claim 12, wherein the register device, the transaction controller, and the protocol converter each comprise an Ethernet connection.
27. A distributed service system according to claim 12, wherein the transaction controller provides Jini services.
28. A distributed service system according to claim 27, wherein the first peripheral is registered with the Jini services.
29. A distributed service system according to claim 12, wherein the register device is remotely located from the first peripheral device.
30. A distributed service system according to claim 12, wherein the transaction controller is remotely located from the peripheral device.
31. A method for operating a distributed service system, the method comprising:
 - operating a register device for conducting a transaction at a first location;
 - operating a first peripheral device configured to communicate information regarding the transaction according to a first protocol;
 - operating a remotely located protocol converter coupled to the register device and the first peripheral device by a TCP/IP communication link, the protocol converter configured to receive information from the first peripheral device according to the first protocol and communicate the information using TCP/IP; and
 - operating a transaction controller remotely located from said register device and coupled to the protocol converter and the register device, the transaction controller operable to facilitate communication between the register device and the protocol converter.

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EVIDENCE APPENDIX

No evidence has been submitted herewith or is relied upon in the present appeal.

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Group Art Unit: 2182
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RELATED PROCEEDINGS APPENDIX

There are no related proceedings and/or decisions which relate to the present appeal.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/716,604	11/20/2000	Apurva M. Desai	A-68701/MAK/LM	1590
30636	7590	09/14/2005		EXAMINER

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DATE MAILED: 09/14/2005

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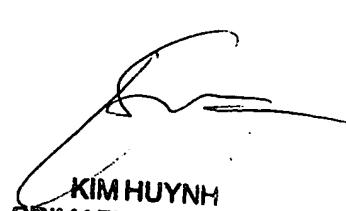
Notification of Non-Compliant Appeal Brief (37 CFR 41.37)	Application No. 09/716,604	Applicant(s) DESAI ET AL.
	Examiner Justin Knapp	Art Unit 2182

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The Appeal Brief filed on 01 July 2005 is defective for failure to comply with one or more provisions of 37 CFR 41.37.

To avoid dismissal of the appeal, applicant must file an amended brief or other appropriate correction (see MPEP 1205.03) within ONE MONTH or THIRTY DAYS from the mailing date of this Notification, whichever is longer. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136.

1. The brief does not contain the items required under 37 CFR 41.37(c), or the items are not under the proper heading or in the proper order.
2. The brief does not contain a statement of the status of all claims, (e.g., rejected, allowed, withdrawn, objected to, canceled), or does not identify the appealed claims (37 CFR 41.37(c)(1)(iii)).
3. At least one amendment has been filed subsequent to the final rejection, and the brief does not contain a statement of the status of each such amendment (37 CFR 41.37(c)(1)(iv)).
4. (a) The brief does not contain a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings, if any, by reference characters; and/or (b) the brief fails to: (1) identify, for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function under 35 U.S.C. 112, sixth paragraph, and/or (2) set forth the structure, material, or acts described in the specification as corresponding to each claimed function with reference to the specification by page and line number, and to the drawings, if any, by reference characters (37 CFR 41.37(c)(1)(v)).
5. The brief does not contain a concise statement of each ground of rejection presented for review (37 CFR 41.37(c)(1)(vi)).
6. The brief does not present an argument under a separate heading for each ground of rejection on appeal (37 CFR 41.37(c)(1)(vii)).
7. The brief does not contain a correct copy of the appealed claims as an appendix thereto (37 CFR 41.37(c)(1)(viii)).
8. The brief does not contain copies of the evidence submitted under 37 CFR 1.130, 1.131, or 1.132 or of any other evidence entered by the examiner and relied upon by appellant in the appeal, along with a statement setting forth where in the record that evidence was entered by the examiner, as an appendix thereto (37 CFR 41.37(c)(1)(ix)).
9. The brief does not contain copies of the decisions rendered by a court or the Board in the proceeding identified in the Related Appeals and Interferences section of the brief as an appendix thereto (37 CFR 41.37(c)(1)(x)).
10. Other (including any explanation in support of the above items):



KIM HUYNH
PRIMARY EXAMINE

9/12/05

ET